

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26



Dr. E. E. Grishayev  
Head, Department of Finance and Capital Investment  
State Committee of the Council of Ministers  
Moscow, U.S.S.R.

In accordance with our agreement reached at the November, 1973, meeting of the US-USSR Joint Group of Experts in the Field of Science Policy, I am enclosing for your consideration material called for in the Study Outline established for the exchange of information on the financing of research and development.

The material is organized into two sections. The first contains table shells showing the types of USSR research and development data requested by US analysts of Soviet research and development activities. The second contains table shells representing the types of research and development financial data which can be made available to Soviet experts on research and development activities in the US and related material on US collection methodologies, definitions and concepts.

Generally, the research and development expenditure data called for in both sections pertain to:

type of work (fundamental and applied research, development, construction of research and development plant)

type of research and development performer

field of science

function (such as health, transportation, etc.)

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Science Policy

Dr. E. E. Grishayev

-2-

April 23, 1974

branches of the national economy (industry, agriculture, etc.)

cost elements (wages, materials)

size of performing institution

geographic location

sources of financing (budget, enterprise funds)  
and mode of financing contracts, direct funding.

The terminology used to describe the characteristics of Soviet research and development financial data reflect US perceptions of the appropriate terms based on available Soviet literature. Our perceptions may be faulty, and it is possible that better terms can be arrived at in further discussions.

Section I contains 24 table shells for which Soviet data are requested. The first 21 of these tables refer to science outlays (on research and development and/or construction) as defined in Soviet statistical practice. Since Soviet accounting differs somewhat from ours, and since an ultimate goal of our joint effort is to develop more comparable measures of US and USSR research and development activity, we have included three additional tables (Tables 22-24) which deal with expenditures not included in Soviet data on science outlays but are included to a considerable extent in US data on research and development in industrial enterprises.

Throughout Tables 1-21, terminology is intended to be uniform. Thus, in Table 1 "research and development" means science outlays excluding construction, and this is the meaning in which research and development is used throughout the first 16 table shells. Similarly, in Table 1, "construction" means capital investment for science only, and this is its meaning in Tables 4 and 18-20. Where a term has a more restricted meaning in one table than in another, this is specified: for example, in the tables that involve distributions of outlays by type of performer, "production enterprises" conceptually includes enterprises in all branches of material production; in Tables 17 and 22-24, it seemed appropriate to restrict the term to industrial enterprises only.

Please note that Table 21 asks for a distribution of research and development outlays by function or purpose but that no functional categories are provided. This omission arises from the difficulty in framing such a table in terms that do not simply duplicate either the functional categories used by the US side, which may not be suitable for classifying Soviet research and development data, or terms used in the distribution asked for by branch of the economy and branch of industry. We will welcome indications of possible functional categories

Dr. E. E. Grishayev

-3-

April 23, 1974

for which the USSR side could provide data. The extent to which the distributions by branch of the economy and branch of industry approximate functional groupings depends of course on how the data are derived. We anticipate that many questions of this sort will arise throughout the study which will be clarified by providing explanatory notes with tabular material and by exchange of information on statistical concepts, definitions and methodology of collecting and aggregating data, as provided for in the Study Outline.

The years specified on the tables represent our notion of what data are most likely to be available in finished form in Soviet statistics. If, however, the Soviet side is able to provide data for nonspecified years, such data would be welcome.

Section II contains 38 table shells indicating the data the US side can make available to Soviet analysts on US financing of research and development. The tables provide for data aggregated to the national level as well as selected statistics for each of the four major sectors of the economy. We have included in Section II information on the definitions, concepts and survey methodology (including survey forms and instructions) used in collecting US data on research and development.

I look forward to receiving from you in the near future a list of the types of data Soviet analysts would be interested in receiving from the US side and the types of data on research and development financing available from the Soviet side.

25X1A



WS:JDV  
Enclosures

Section I. U.S.S.R. Data on Financing Research and Development

Page No.

Table 1 - Total Science Outlays (R&D and Construction), 1950-1973 -----	I-1
Table 2 - Total R&D Outlays by Type of Work, by selected Years, 1950-1973 -----	I-2
Table 3 - Total R&D Outlays by Type of Performer, 1950-1973 -----	I-3
Table 4 - Total Construction Outlays by Type of Performer, 1950-1973 -----	I-4
Table 5 - Total R&D Outlays by Sources of Funding, 1950-1973 -----	I-5
Table 6 - Total R&D Outlays by Branch of the Economy, 1950-1973 -----	I-6
Table 7 - Total R&D Outlays by Branch of the Economy and Type of Performer, 1965-1973 -----	I-7
Table 8 - Total R&D Outlays by Branch of the Economy and Source of Funding, 1965-1973 -----	I-8
Table 9 - Total Industrial R&D Outlays by Branch of Industry, 1950-1973 -----	I-9
Table 10 - Total Industrial R&D Outlays by Branch of Industry and Type of Performer, 1965-1973 --	I-10
Table 11 - Total Industrial R&D Outlays by Branch of Industry and Source of Funding, 1965-73 ----	I-11
Table 12 - Total R&D Outlays by Type of Performer, Type of Work, and Source of Funding, 1965-1973 --	I-12
Table 13 - R&D Outlays by Type of Expenditure (R&D Organizations Only), Selected Years, 1950-1973 -----	I-13
Table 14 - Fundamental and Applied Research Outlays by Field of Science, Selected Years, 1950-1973	I-14
Table 15 - Total R&D Outlays by Geographic Region, Selected Years, 1950-1973 -----	I-15
Table 16 - R&D Outlays of R&D Organizations by Size of Organization, 1965-1973 -----	I-16
Table 17 - R&D Outlays of Production Enterprises (Industrial Enterprises Only) By Size of Enterprise, 1965-1973 -----	I-17
Table 18 - Total Construction Outlays by Sources of Funding, Selected Years, 1950-1973 -----	I-18
Table 19 - Total Construction Outlays by Type of Expenditure, Selected Years, 1950-1973 -----	I-19
Table 20 - Total Construction Outlays by Branch of the Economy, Selected Years, 1950-1973 -----	I-20
Table 21 - Total R&D Outlays by Function, 1966-1973 --	I-21
Table 22 - Total Preproduction or "Innovation" Outlays (Not in Science Outlays) at Industrial Production Enterprises, Selected Years, 1950-1973 -----	I-22
Table 23 - Total Preproduction or "Innovation" Outlays (Not in Science Outlays) At Industrial Production Enterprises by Source of Funding, Selected Years, 1950-1973 -----	I-23

U.S. - U.S.S.R. PROGRAM OF COOPERATION  
IN THE FIELD OF SCIENCE POLICY

Proposed R&D Expenditure Data to be Included  
in the Exchange of Information Between the U.S.  
and U.S.S.R.

Prepared by the U.S. Members of the  
Working Subgroup on the Financing of  
Research and Development

April 1974

Table 24 - Total Preproduction Or "Innovation" Outlays  
(Not in Science Outlays) at Industrial Pro-  
duction Enterprises by Branch of Industry,  
Selected Years, 1950-1973 -----

I-24

Section II. U.S. R&D Expenditure Survey Concepts, Definitions  
and Methodology

Concepts, Definitions and Methodology

Performing Sector	II-1
R&D Activity	II-1
Research	II-2
Basic Research	II-2
Applied Research	II-2
Development	II-2
Current Operating Costs	II-2
Capital R&D Expenditure	II-2
Fields of Science	II-3
National R&D Expenditures	II-3
Federal R&D Funding	II-3
R&D Funding	II-3
Reporting Period	II-4
Federal Agency	II-4
Performers	II-4
R&D Plant	II-5
Industrial R&D Expenditures	II-5
Operating Expenditures	II-5
Federally Financed Research and Development	II-5
Company Financed Research and Development	II-5
Geographic Data	II-5
Industries and Industry Groups	II-5
A Reporting Unit	II-7
The Industry R&D Survey Sample	II-7
Universities and Colleges R&D Expenditures	II-7
Current Expenditures for Separately Budgeted R&D	II-7
Non-Separately budgeted R&D Expenditures	II-7
The Coverage	II-8
Nonprofit R&D Expenditures	II-8
Current R&D Expenditures	II-8
The Coverage	II-8

Page No.

## Functional Distribution of Federal R&amp;D Obligations

II-8

Scope and Coverage

II-8

Classifications and Definitions

II-9

## U.S. Tables

Table 1 - Transfers of funds expended annually for performance of research and development by sector, distributed by source, 1953-73 -----	II-10
Table 2 - Transfers of funds expended annually for performance of basic research by sector, distributed by source, 1953-73 -----	II-11
Table 3 - Transfers of funds expended annually for performance of applied research by sector, distributed by source, 1953-73 -----	II-12
Table 4 - Transfers of funds expended annually for performance of development by sector, distributed by source, 1953-73 -----	II-13
Table 5 - Trends in defense, space, and all other R&D outlays, by source, 1953-73 -----	II-14
Table 6 - Federal expenditures for research and development, by agency, fiscal years 1964-74 -----	II-15
Table 7 - Federal expenditures for R&D plant, by agency, fiscal years 1964-74 -----	II-16
Table 8 - Federal obligations for research and development, by agency, fiscal years 1964-74 -----	II-17
Table 9 - Federal obligations for R&D plant, by agency, fiscal years 1964-74 -----	II-18
Table 10 - Federal obligations for basic research, by selected agency, fiscal years 1964-74 -----	II-19
Table 11 - Federal obligations for applied research, by selected agency, fiscal years 1964-74 -----	II-20
Table 12 - Federal obligations for development, by selected agency, fiscal years 1964-74 -----	II-21
Table 13 - Federal obligations for basic research, by performer, fiscal years 1964-74 -----	II-22
Table 14 - Federal obligations for applied research, by performer, fiscal years 1964-74 -----	II-23
Table 15 - Federal obligations for development, by performer, fiscal years 1964-74 -----	II-24
Table 16 - Federal obligations for basic research, by field of science, fiscal years 1964-74 -----	II-25
Table 17 - Federal obligations for applied research, by field of science, fiscal years 1964-74 -----	II-26
Table 18 - Federal obligations for research and development, by geographic division and State fiscal years 1963, 1965, 1968, 1969, 1970, 1971 and 1972 -----	II-27
Table 19 - Federal obligations for R&D plant, by geographic division and State, fiscal years 1963, 1965, 1968, 1969, 1970, 1971, and 1972 -----	II-28

Table 20 - Federal R&D expenditures by function, sub-function, and agency program under an alternative classification system, fiscal years 1963-74 -----	II-29
Table 21 - Funds for research and development, by industry, 1956-1973 -----	II-30
Table 22 - Federal funds for research and development, by industry 1957-1973 -----	II-31
Table 23 - Company funds for research and development, by industry 1957-1973 -----	II-32
Table 24 - Funds for research and development, by industry and size of company, 1956-1973 --	II-33
Table 25 - Funds for basic research, applied research, and development by selected industry and size of company, 1957-1973 -----	II-34
Table 26 - Funds for basic research, by selected industry and field of science, 1957-1973 -	II-35
Table 27 - Funds for applied research and development, by product field, 1959-1973 -----	II-36
Table 28 - Distribution of R&D costs, by industry and type of cost, 1962-1973 -----	II-37
Table 29 - Geographic distribution of funds for industrial research and development, 1962-1973	II-38
Table 30 - Current expenditures for research and development in universities and colleges, by source of funds, 1953-1973 -----	II-39
Table 31 - Current expenditures for research and development in universities and colleges, by State, 1964-1973 -----	II-40
Table 32 - Federal expenditures for research and development in universities and colleges, by State, 1964-1973 -----	II-41
Table 33 - Current expenditures for R&D in universities and colleges, by field of science, and source of funds, 1964-1973 -----	II-42
Table 34 - Percent distribution of selected financial, employment, and educational characteristics of scientific and engineering activities of universities and colleges, by institutional group ranked on the basis of R&D expenditures, 1968-1973 -----	II-43
Table 35 - Capital expenditures for research, development, and instruction in the sciences and engineering in universities and colleges, by type of institution, and source of funds, 1964-1973 -----	II-44
Table 36 - Current expenditures for intramural R&D performance of independent nonprofit institutions, by source of funds, 1953-1973 -	II-45



Page No.

Table 37 - Current expenditures for R&D performance of independent nonprofit institutions, by source of funds and R&D expenditure-size class, 1964-1973 -----	II-46
Table 38 - Current expenditures for R&D performance of independent nonprofit institutions, by field of science -----	II-47

Table 1  
 USSR: Total Science Outlays (R&D and Construction), 1950-1973  
 [Million rubles]

Year	Total	R&D	Construction
1950			
1951			
1952			
1953			
1954			
1955			
1956			
1957			
1958			
1959			
1960			
1961			
1962			
1963			
1964			
1965			
1966			
1967			
1968			
1969			
1970			
1971			
1972			
1973			

Table 2  
USSR: Total R&D Outlays by Type of Work, by selected Years, 1950-1973  
[Million rubles]

Year	Total	Fundamental research	Applied research	Develop- ment
1950				
1966				
1967				
1968				
1969				
1970				
1971				
1972				
1973				

Table 3  
USSR: Total R&D Outlays by Type of Performer, 1950-1973

[Million rubles]

Year	Total	R&D Organizations		Higher Educational Institutions	Production Enterprises	Other Organizations
		Total	Of which: Academies			
1950						
1951						
1952						
1953						
1954						
1955						
1956						
1957						
1958						
1959						
1960						
1961						
1962						
1963						
1964						
1965						
1966						
1967						
1968						
1969						
1970						
1971						
1972						
1973						

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Table 4  
USSR: Total Construction Outlays by Type of Performer, 1950-1973  
[Million rubles]

Year	Total	R&D Organizations		Higher Educational Institutions	Production Enterprises	Other Organizations
		Total	Of which: Academies			
1950						
1951						
1952						
1953						
1954						
1955						
1956						
1957						
1958						
1959						
1960						
1961						
1962						
1963						
1964						
1965						
1966						
1967						
1968						
1969						
1970						
1971						
1972						
1973						

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Table 5  
USSR: Total R&D Outlays by Sources of Funding, 1950-1973  
[Million rubles]

Year	Total	Direct Funding				Contracts		
		Total	Science budget	Other budget	Enterprise funds	Total	Science budget	Other budget
1950								
1951								
1952								
1953								
1954								
1955								
1956								
1957								
1958								
1959								
1960								
1961								
1962								
1963								
1964								
1965								
1966								
1967								
1968								
1969								
1970								
1971								
1972								
1973								

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Table 6  
USSR: Total R&D Outlays by Branch of the Economy, 1950-1973  
[Million rubles]

Branch of Economy	1950	1951	1952	1973
Total all Branches				
Industry				
Agriculture				
Forestry				
Transportation				
Communications				
Construction				
Trade, supply, procurement				
Housing and Municipal services				
Health				
Education, culture, art				
Geology				
Hydro-meteorology				
Administration and finance				
Other functional branches				
Other outlays not attributable to functional branches				

a/ For example, outlays of the general academies of sciences, higher educational institutions.

Table 7  
USSR: Total R&D Outlays by Branch of the Economy and Type of Performer, 1965-1973<sup>a/</sup>  
[Million rubles]

Branch of Economy	Total	R&D Organizations		Higher Educational Institutions	Production Enterprises	Other Organizations
		Total	Of which: Academies			
Total all Branches						
Industry						
Agriculture						
Forestry						
Transportation						
Communications						
Construction						
Trade, supply, procurement						
Housing and municipal services						
Health						
Education, culture, art						
Hydrology						
Hydrometeorology						
Administration and finance						
Other outlays not attributable to functional branches						

<sup>a/</sup> These data are requested for each year, 1965 through 1973.

Approved For Release



Table 8  
USSR: Total R&D Outlays by Branch of the Economy and Source of Funding, 1965-1973<sup>a/</sup>  
[Million rubles]

Branch of Economy	Total	Direct Funding				Contracts			
		Total	Science budget	Other budget	Ent. funds	Total	Science budget	Other budget	Ent. funds
Total all Branches									
Industry									
Agriculture									
Forestry									
Transportation									
Communications									
Construction									
Trade, supply, procurement									
Housing and municipal services									
Health									
Education, culture, art									
Geology									
Hydrometeorology									
Administration and finance									
Other functional branches									
Other outlays not attributable									
Other functional branches									

release 2000/08/23 : CIA-RDP79-00798A000500090003

<sup>a/</sup> These data are requested for each year, 1965 through 1973

Approved For Release

Table 9  
USSR: Total Industrial R&D Outlays By Branch of Industry, 1950-1973

[Million rubles]

Branch of Industry	1950	1951	1952	----- 1973
Total all Branches				
Electric power				
Fuels				
Oil and gas				
Coal				
Other fuels				
Ferrous metals				
Nonferrous metals				
Chemicals and petrochemicals				
Chemicals				
Petrochemicals				
Machinerybuilding and metalworking				
Heavy, power, and transport machinery				
Electrical equipment				
Other C.				
Lumber, wood products, paper				
Construction materials				
Glass, porcelain				
Light industry				
Food industry				
Other industry				

Approved For Release

Table 10  
USSR: Total Industrial R&D Outlays by Branch of Industry and Type of Performer, 1965-1973<sup>a/</sup>  
[Million rubles]

Branch of Industry	Total	R&D Organizations		Higher Educational Institutions	Production Enterprises	Other Organizations
		Total	Of which: academies			
Total all Branches						
Electric power						
Fuels						
Oil and gas						
Coal						
Other fuels						
Nonferrous metals						
Chemicals and Petrochemicals						
Chemicals						
Petrochemicals						
Machinebuilding and metal working						
Heavy, power, and transport mach.						
Electrical equipment						
etc.						
Leather, wood products, paper						
Construction materials						
Glass, porcelain						
Light industry						
Food industry						
Other industry						

<sup>a/</sup>These data are requested for each year, 1965 through 1973.

Table 11  
USSR: Total Industrial R&D Outlays by Branch of Industry and Source of Funding, 1965-73<sup>a/</sup>  
[Million rubles]

Branch of Industry	Total	Direct funding				Contracts			
		Total	Science budget	Other budget	Ent. funds	Total	Science budget	Other budget	Ent. funds
Total all Branches									
Electric power									
Fuels									
Oil and gas									
Coal									
Other fuels									
Ferrous metals									
Nonferrous metals									
Chemicals and petrochemicals									
Chemicals									
Petrochemicals									
Machinebuilding and metal-working									
Heavy, power, transp. mach.									
Electrical equipment									
etc.									
Lumber, wood products, paper									
Construction materials									
Glass, porcelain									
Light industry									
Food industry									
Other industry									

<sup>a/</sup> These data are requested for each year, 1965 through 1973

USSR: Total R&D Outlays by Type of Performer, Type of Work, and Source of Funding, 1965-1973<sup>a/</sup>  
[Million rubles]

Performer & Type of Work	Total	Direct funding				Contracts			
		Total	Science budget	Other budget	Ent. funds	Total	Science budget	Other budget	Ent. funds
Total all Performers									
R&D Organizations, Total									
Fundamental research									
Applied research									
Development									
Of which: Academies									
Fundamental									
Applied									
Development									
Higher Educational Institutions									
Fundamental									
Applied									
Development									
Production Enterprises									
Fundamental									
Applied									
Development									
Other Organizations									
Fundamental									
Applied									
Development									

a/ These data are requested for each year, 1965 through 1973.

Table 13  
USSR: R&D Outlays by Type of Expenditure (R&D Organizations Only),  
Selected Years, 1950-1973

[Million rubles]

Type of Expenditure	1950	1960	1965	1973
Total all Expenditure				
Wages				
Scientists and engineers				
Other employees				
Purchase of Equipment				
Scientific equipment				
Other equipment				
Materials, Power, etc.				
Materials				
Power				
Other				
Other Expenditures				
Social insurance charges				
Stipends				
Capital repair				
Other				

Table 14  
USSR: Fundamental and Applied Research Outlays by Field of Science,  
Selected Years, 1950-1973a/

[Million rubles]

Field of Science	1950	1960	1965	1973
Total, all Fields				
Physics and mathematics				
Physics				
Mathematics				
Chemistry				
Biology				
Geology and mineralogy				
Technical sciences				
Machinebuilding				
etc.				
Agricultural and veterinary sciences				
History				
Economics				
Philosophy				
Sociology				
Other				
Philology				
Linguistics				
Other				
Geography				
Oceanography				
Meteorology				
Other				
Law				
Pedagogical sciences				
Psychology				
Medicine and pharmacy				
Art				
Architecture				
Other Sciences				

a/ For years in which the distinction can be made, separate tables are desirable (one for fundamental) and one for applied research).

Table 15  
USSR: Total R&D Outlays by Geographic Region, Selected Years, 1950-1973  
[Million rubles]

Geographic Region	1950	1960	1965	----- 1973
Total, all Regions				
USSR (If possible, please subdivide by region)				
Ukrainian SSR				
Belorussian SSR				
Lithuanian SSR				
Latvian SSR				
Estonian SSR				
Moldavian SSR				
Georgian SSR				
Azerbaijan SSR				
Armenian SSR				
Uzbek SSR				
Kazakh SSR				
Kirgiz SSR				
Tajik SSR				
Turkmen SSR				

Approved For Release

2000/08/23



Table 16  
USSR: R&D Outlays of R&D Organizations by Size of Organization,  
1965-1973

[Million rubles]

Size of organization	1965	1966	----- 1973
Total, all R&D Organizations			
Size Classes Based on Employment (units) For example: 500 or less 501 - 1,000 1,001 - 3,000 3,000 or more			
Size Classes Based on Outlays (1,000 rubles) For example: 1,500 or less 1,501 - 3,000 3,000 - 10,000 10,000 or more			

Table 17  
USSR: R&D Outlays of Production Enterprises (Industrial Enterprises Only)  
By Size of Enterprise, 1965-1973

[Million rubles]

Size of Enterprise	1965	1966	1973
Total, all Industrial Enterprises			----- 1973
By Size Classes Based on Employment (units)			
example:			
1,000 or less			
1,001 - 3,000			
3,001 - 10,000			
10,001 or more			
By Size Classes Based on Gross Output (1,000 rubles)			
or example:			
10,000 or less			
10,001 - 50,000			
50,001 - 100,000			
100,001 or more			

Table 18  
USSR: Total Construction Outlays by Sources of Funding, Selected  
Years, 1950-1973  
[Million rubles]

Year	Total	Science budget	Other Budget	Enterprise funds
1950				
1951				
1952				
1953				
1954				
1955				
1956				
1957				
1958				
1959				
1960				
1961				
1962				
1963				
1964				
1965				
1966				
1967				
1968				
1969				
1970				
1971				
1972				
1973				

Table 19  
USSR: Total Construction Outlays by Type of Expenditure,  
Selected Years, 1950-1973

[Million rubles]

Year	Total	Construction and installation	Equipment	Other expenditures
1950				
1951				
1952				
1953				
1954				
1955				
1956				
1957				
1958				
1959				
1960				
1961				
1962				
1963				
1964				
1965				
1966				
1967				
1968				
1969				
1970				
1971				
1972				
1973				

Table 20  
USSR: Total Construction Outlays by Branch of the Economy,  
Selected Years, 1950-1973

[Million rubles]

Branch of economy	1950	1955	1960	1965	----- 1973
Total, all Branches					
Industry					
Agriculture					
Forestry					
Transportation					
Communications					
Construction					
Trade, supply, procurement					
Housing and municipal services					
Health					
Education, culture, art					
Geology					
Hydroметеорология					
Administration and finance					
Other functional branches					
Other outlays not attributable to functional branches					

Approved For Release

Table 21  
USSR: Total R&D Outlays by Function, 1966-1973  
[Million rubles]

Year	Total R&D Outlays	Function <sup>a/</sup>
1966		
1967		
1968		
1969		
1970		
1971		
1972		
1973		

<sup>a/</sup> The Soviet side is requested to provide suitable functional categories.

Table 22  
USSR: Total Preproduction or "Innovation" Outlays (Not in Science Outlays)  
At Industrial Production Enterprises, Selected Years, 1950-1973  
[Million rubles]

Year	Total	Development <sup>a/</sup>	Other preproduction outlays <sup>b/</sup>
1950			
1960			
1965			
1966			
1967			
1968			
1969			
1970			
1971			
1972			
1973			

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

<sup>a/</sup> This column is intended to cover the sort of work that would be classified as development if performed by R&D organizations (designing, building, and testing development prototypes).  
<sup>b/</sup> Start-up costs for production (tooling up, producing trial lot, etc.).

Table 23

USSR: Total Preproduction or "Innovation" Outlays (Not in Science Outlays)  
 At Industrial Production Enterprises by Source of Funding,  
 Selected years, 1950-1973  
 [Million rubles]

Source of funding	1950	1960	1965	----- 1973
Total, all Sources				
Budget				
For mastering new technology				
Funds for development of production				
Gosbank loans				
Expenditures of future periods				
Other sources				



Table 24  
 USSR: Total Preproduction or "Innovation" Outlays (Not in Science Outlays)  
 at Industrial Production Enterprises by Branch of Industry,  
 Selected Years, 1950-1973

[Million rubles]

Branch of industry	1950	1960	1965	----- 1973
Total, all Branches				
Electric power				
Fuels				
Nonferrous metals				
Chemicals and petrochemicals				
Machinebuilding and metalworking				
Timber, wood products, paper				
Construction materials				
Glass, procelain				
Light industry				
Food industry				
Other industry				

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1  
Section II. U.S. R&D EXPENDITURE SURVEY CONCEPTS, DEFINITIONS AND METHODOLOGY

Performing Sector. U.S. Data on R&D financing are collected and compiled for each of the four major sectors of the national economy. The Federal Sector is made up of the departments and agencies of the Federal Government. The industry sector consists of both manufacturing and non-manufacturing companies. Manufacturing companies are classified in major industry groupings and non-manufacturing companies, which include organizations such as those in selected service industries, are treated as a unit. FFRDC's administered by industrial firms are also included. The universities and colleges sector is composed of all institutions of higher education, both public and private. The universities and colleges sector is comprised of the following:

- colleges of liberal arts
- schools of arts and sciences
- professional schools, such as engineering and medical schools (including affiliated hospitals)
- associated research institutions and similar organizations which represent an integral part of a university or college
- agricultural experiment stations and associated schools of agriculture

Institutions in the nonprofit sector fall into two general groups:

1) organizations that are primarily granting in nature, namely private philanthropic foundations and voluntary health agencies and 2) public and private organizations that are involved in performing research and development including separately incorporated nonprofit research institutes, professional societies, academies of science, museums, zoological gardens, botanical gardens, arboretums, nonprofit hospitals.

Finally, within each of the private sectors are a number of Federally Funded Research and Development Centers administered by private organizations. These centers are R&D performing organizations exclusively or substantially financed by the Federal Government, that were established to meet either a particular R&D objective or to provide major facilities at universities for research and associated training purposes.

R&D Activity. Research and development consist of basic and applied research in the sciences (including medical sciences) and in engineering and activities in development, as defined below.

Research, which is made up of basic and applied, is systematic, intensive study directed toward fuller scientific knowledge of the subject studied. Research in the natural sciences - life, physical and engineering - as well as the social and psychological sciences - is covered in the Federal, universities and other nonprofit sectors. Industry coverage is limited at present to the natural sciences.

Basic research for three of the sectors, the Federal Government, universities and colleges, and other nonprofit institutions, is defined to stress the emphasis on activity in which the primary aim of the investigator is a fuller knowledge or understanding of the subject under study. To take account of an industry's commercial goals, the definition of basic research for this sector is modified to cover original investigations for the advancement of scientific knowledge which do not have specific commercial objectives although they may be in fields of present and potential interest to the reporting company.

Applied research as defined for surveys of universities and colleges is research directed toward the practical application of knowledge. To take account of the unique characteristics of industrial organizations, the industry survey defines applied research as research directed toward the discovery of new scientific knowledge which has specific commercial objectives with respect to either products or processes. By this definition, applied research in industry differs from basic research chiefly in terms of objectives of the reporting company.

Development may be summarized as the systematic use of scientific knowledge directed toward the production of useful materials, devices, systems or methods including design and development of prototypes and processes. Development includes technical activities of a non-routine nature concerned with translating research findings or other scientific knowledge into products or processes. Development does not include routing technical services to customers.

Current operating costs for research and development refer to both direct and indirect costs of research and development including depreciation, insofar as this information is available to respondents. Included under this category are wages and salaries, materials and supplies consumed, property and other taxes, maintenance and repairs, depreciation and an appropriate share of overhead. Also included are the costs of planning and administering R&D programs.

Capital R&D expenditures are excluded from current operating costs by definition and this practice is followed in both the industry and "other nonprofit" sectors. Under the accounting practices of some Federal agencies, particularly the Department of Defense, detailed data on Federal R&D funds, which are available only in terms of obligations rather than expenditures, do not include an allowance for depreciation but do include some obligations for capital items.

Fields of science used to classify R&D expenditure data reported by the various sectors are divided into broad field categories, most of them consisting of a number of detailed fields. The broad fields are life sciences, psychology, physical sciences, environmental sciences, mathematics, engineering, social sciences and "other sciences not elsewhere classified." Specific taxonomies for fields of science are further described in the sections that follow on individual sector surveys. These taxonomies differ only in the level of detail provided.

### National R&D Expenditures

National statistics on R&D expenditures are compiled from survey data collected independently from all four sectors of the economy - Federal Government, industry, universities and colleges and other nonprofit organizations - based on the amounts each sector reports as spent for intramural research and development and the sources of such funds. While surveys have been conducted in the Federal Government and industry sectors every year since 1953, the same frequency has not been maintained for universities and colleges and other nonprofit institutions. National data for years in which data were not available for the latter two sectors are based on survey data on the performance of total research and development from the Federal and industry sectors and on estimates for the university and other nonprofit sectors.

### Federal R&D Funding

R&D funding. Data are collected from Federal agencies in terms of expenditures and obligations. Expenditures represent the amounts for checks issued and cash payments made during a given period regardless of when the funds were appropriated. Obligations represent the amounts for orders placed, contracts awarded, services received, and similar transactions during a given period, regardless of when the funds are appropriated and when future payment of money is required. For those agencies operating on a cost type budget accrued expenditures and costs are reported instead of obligations. Accrued expenditures represent all costs accrued during the reporting period except those subject to reimbursement from other agencies. The information on expenditures represent net cash payments for research and development and R&D plant exclusive of any receipts of the agencies for those purposes.

Obligations and expenditures for work performed in foreign countries include funds directly available to Federal agencies and special foreign currencies separately appropriated.

Reporting Period. The reporting period for Federal R&D funding survey is the fiscal year which is the government accounting period beginning July 1 of one year and ending June 30 of the following calendar year. Thus, fiscal year 1973 began on July 1, 1972 and ended June 1973.

Funds for research and development are reported on a three-year basis comparable with data shown in the Budget of the United States Government. The data include amounts actually expended or obligated in the last completed year, amounts budgeted for the current year and amounts representing the planned budget for the next year. Data for the latter two periods are considered estimates since they do not represent completed transactions and are subject to further appropriation, apportionment or allocation decisions.

Federal Agency. An agency is an organization of the Federal Government whose principal executive officer reports to the President. The two exceptions are the Library of Congress and the Postal Service which are also included in the survey. The term "subdivision" refers to any major organizational unit of a reporting agency such as a bureau, division, office or service.

Performers. Performers are either intramural organizations accomplishing operational functions or extramural organizations or persons receiving support or providing services as a result of a contract or grant.

Intramural performers are the agencies of the Federal Government. Their work is carried on directly by their own personnel. Extramural performers are all organizations outside the Federal complex that perform with Federal funds under contract or grant. Only costs of actual extramural performers are reported. The cost of extramurally procured "off the shelf" supplies and equipment required to support intramural research and development are reported as part of the cost of intramural performance.

In addition to data on domestic R&D activities that are reported by the other three sectors of the economy, Federal R&D funding data include foreign performers which are confined to foreign citizens, organizations or governments as well as international organizations, such as NATO, UNESCO and WHO, performing R&D abroad financed by the Federal Government. Excluded are payments to U.S. agencies, organizations or citizens performing research and development abroad for the Federal Government.

A final category of performers included in data on Federal Funds for R&D is described as all other miscellaneous performers not covered in the foregoing categories such as state and local governments, and private individuals.

R&D Plant. Federal R&D funding data include obligations and expenditures for R&D plant, that is, R&D facilities and fixed equipment such as reactors, wind tunnels and radio telescopes. These data include funds for the acquisition or construction of major repairs to or alterations in structures, works, equipment, facilities, or land for use in R&D activities at Federal or non-Federal installations. Excluded from the R&D plant category are expendable equipment and office furniture and equipment. Obligations for foreign R&D plant are limited to Federal funds for facilities located abroad and used in support of foreign research and development.

### Industrial R&D Expenditures

Operating expenditures incurred by industrial organizations in the conduct of research and development in their own laboratories or other company owned or operated facilities include wages and salaries, materials and supplies consumed, property and other taxes, maintenance and repairs, depreciation and an appropriate share of overhead that excludes capital expenditures.

Federally financed research and development includes receipts for work done by the company on R&D contracts or subcontracts and R&D portions of procurement contracts and subcontracts.

Company financed research and development includes the cost of company-sponsored research and development performed within the company. It does not include company-financed research and development contracted to outside organizations such as research institutes, universities and colleges or other nonprofit organizations.

Geographic data on an industrial research and development expenditures include only those operations located in the 50 States and the District of Columbia.

Industries and industry groups shown separately in statistical tables are classified according to the Standard Industrial Classification (SIC) Manual as follows:

#### Manufacturing industries:

- Food and kindred products (20)
- Textiles and apparel (22,23)
- Lumber, wood products, and furniture (24,25)
- Paper and allied products (26)
- Chemical and allied products (28)
  - Industrial chemicals (281-82)
  - Drugs and medicines (283)
  - Other chemicals (284-89)

Petroleum refining and extraction (29,13)<sup>1/</sup>  
 Rubber products (30)  
 Stone, clay, and glass products (32)  
 Primary metals (33)

Ferrous metals and products (331-32,3391,3399)  
 Nonferrous metals and products (333-36,3392)

Fabricated metal products (34)  
 Machinery (35)  
 Electrical equipment and communication (36,48)<sup>1/</sup>  
 Radio and TV receiving equipment (365)  
 Communication equipment and electronic  
 components (366-67, 48)  
 Other electrical equipment (361-64 and 369)

Motor vehicles and other transportation equipment  
 8(371,7 373-75, 379)  
 Aircraft and missiles (372, 19)

Professional and scientific instruments (38)  
 Scientific and mechanical measuring instru-  
 ments (381-82)

Optical, surgical, photographic, and other  
 instruments (383-87)  
 Other manufacturing industries-tobacco  
 manufacturers (21), printing and publishing  
 (27), leather products (31), and miscellaneous  
 manufacturing industries (39)

#### Nonmanufacturing industries:

agriculture, forestry, and fisheries (07-09); mining  
 (10-12,14); contract construction (15-17); trans-  
 portation and other public utilities (41-47,49);  
 wholesale and retail trade (50-59); finance,  
 insurance, and real estate (60-67); and selected  
 service industries (739,807,891).

---

<sup>1/</sup>Crude petroleum extraction (13) is grouped with petroleum refining  
 (29), and communication (48) is grouped with electrical equipment  
 (36), in the manufacturing group of industries.

A reporting unit for industry R&D expenditure data is the company or corporate family which includes all establishments under common ownership or control. Similarly each company is classified in a single size category on the basis of its total employment.

The industry R&D survey sample encompasses all manufacturing industries and those non-manufacturing industries known on the basis of earlier more detailed samples to conduct or to finance research and development. The sampling unit for the survey is the company, defined as a business organization consisting of one or more establishments under common ownership or control. All manufacturing companies with 1,000 or more employees in 1967, as determined from the 1967 Economic Censuses Enterprise Statistics multi-unit file, are included in the samples with certainty. Manufacturing companies with fewer than 1,000 employees are sampled at rates depending upon their industry and employment size as determined in the 1967 Economic Censuses Enterprise Statistics multi-unit file and the 1967 Census of Manufacturing universe file. For non-manufacturing industries, the sample was based on the 1966 records of the Social Security Administration.

Approximately 8,000 manufacturing and non-manufacturing companies were represented in the 1971 sample. More than 1,800 of the companies included were "certainty" companies which account for almost 95 percent of the total R&D performance funds. The probabilities of being selected in the industry survey range from one change in 200 (.005) to certainty (1.000).

#### Universities and Colleges R&D Expenditures

Current expenditures for separately budgeted R&D include direct and indirect costs for research and development performed under a grant or contract from the Federal Government, State Government, industrial organizations, etc., and R&D paid for from institutions own funds which were designated or budgeted by the institution for such use.

Non-separately budgeted R&D Expenditures include amounts reported in addition to separately budgeted R&D expenditures representing departmental research and other R&D activities for which universities and colleges do not maintain separate records. These amounts are estimated by institutions and include funds allocated to departmental research by the various academic departments as well as some indirect costs associated with R&D performance.



The coverage of the survey of universities and colleges survey includes some 800 institutions of higher education in the United States and U.S. possessions which are known to have R&D programs in the sciences and engineering. These institutions are sent mail questionnaires after which intensive follow-up procedures are employed with the larger universities resulting in obtaining R&D expenditures data comprising about 95 percent of all R&D expenditures at universities and colleges. Totals reported for this sector include estimates for nonresponse made from information compiled from secondary sources.

#### Nonprofit R&D Expenditures

Current R&D Expenditures include direct and indirect costs for R&D performed with funds provided by other organizations or from institutions' own funds.

The coverage of the survey of independent nonprofit research organizations includes some 500 to 600 facilities which are surveyed by mail. Follow-up for non-response is conducted by mail or, in the case of the largest intramural R&D performers, by telephone. The criteria for including a research institution in this sector is based primarily on its independent and tax exempt status with the U.S. Internal Revenue Service. There is no single directory or source document from which a complete mailing list of nonprofit organizations which perform research and development is available. Organizations are selected for surveying, therefore, from mailing lists used in previous surveys and a number of specialized directories. The number of such organizations with R&D expenditures totalling \$100,000 or more excluded from the survey is believed to be extremely small.

#### Functional Distribution of Federal R&D Obligations

Scope and coverage. Data on Federal R&D obligations by function, (or R&D objective) presents a distribution of Federal funding by 16 individual functions representing the major purposes for which U.S. R&D efforts are committed. This distribution is made by National Science Foundation staff based on data compiled for the Budget of the United States Government and on agency reports to the National Science Foundation on R&D obligations.

The data on Federal outlays by function and subfunction are taken directly from the budget document. Interest is excluded as a function as is general revenue sharing the annual totals used for computation of shared relationships represents total outlays minus interest general revenue sharing and special allowances plus undistributed adjustments. No information is available to permit distribution of offsetting receipts among the various subfunctions.

II-9.

Classifications and definitions. The definitions of functions and subfunctions are implicit in their titles and content. Each function under the budget arrangement embraces the agency's components whose primary mission is related to that function. R&D programs of each agency's subdivision or program are classified into a single function since multiple functions would cause programs to overlap and add to more than 100 percent of total R&D expenditures.

Table 1  
U.S. : Transfers of funds expended annually for performance of research and development by sector, distributed by source, 1953-73  
[Millions of dollars]

Year	Total R&D	Federal Government		Industry			Universities and colleges					Associated FFRDC's		Other nonprofit institutions		
		Total funds used	Source	Total funds used	Federal Government	Industry	Sources			Univer- sities and col- leges	Other non- profit institu- tions	Total funds used	Source	Total funds used	Federal Government	Other non- profit institu- tions
1953																
1954																
1955																
1956																
1957																
1958																
1959																
1960																
1961																
1962																
1963																
1964																
1965																
1966																
1967																
1968																
1969																
1970																
1971																
1972																
1973																

Table 2  
U.S. : Transfers of funds expended annually for performance of basic research by sector, distributed by source, 1953-73  
[Millions of dollars]

Year	Total basic research.	Federal Government		Industry			Universities and colleges					Associated FFRDC's		Other nonprofit institutions				
		Total funds used	Source	Total funds used	Sources		Total funds used	Sources				Total funds used	Source	Total funds used	Sources			
					Federal Government	Industry		Federal Government	Industry	Universities and colleges	Other nonprofit institutions				Federal Government	Industry		
1953																		
1973																		

00/08/23 : CIA-RDP79-00798A000500090003-1

00/08/23 : CIA-RDP79-00798A000500090003-1

Table 3  
U.S.: Transfers of funds expended annually for performance of applied research by sector, distributed by source, 1953-73  
[Millions of dollars]

Year	Total applied research	Federal Government		Industry			Universities and colleges					Associated FFRDC's		Other nonprofit institutions		
		Total funds used	Source	Total funds used	Federal Government	Industry	Sources			Total funds used	Federal Government	Source	Total funds used	Federal Government	Industry	Other nonprofit institutions
1953																
1953																

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Table 4  
U.S. : Transfers of funds expended annually for performance of development by sector, distributed by source, 1953-73  
[Millions of dollars]

Year	Total development	Federal Government		Industry			Universities and colleges					Associated FFRDC's		Other nonprofit institutions		
		Total funds used	Federal Government	Sources		Total funds used	Sources				Total funds used	Source	Total funds used	Sources		Other nonprofit institutions
				Federal Government	Industry		Federal Government	Industry	Universities and colleges	Other nonprofit institutions				Federal Government	Industry	
1953																
1954																
1955																
1956																
1957																
1958																
1959																
1960																
1961																
1962																
1963																
1964																
1965																
1966																
1967																
1968																
1969																
1970																
1971																
1972																
1973																

Table 5

U.S.: Trends in defense, space, and all other R&D outlays, by source, 1953-73

Year	Defense-space outlays as a percent of total R&D			Nondefense-nonspace outlays as a percent of total R&D		
	Total	Defense related	Space related	Total	Non-Federal	Federal
1953						
...						
1973						

Table 6  
U.S.: Federal expenditures for research and development, by agency, fiscal years 1964-74  
(Millions of dollars)

Agency	1964 - - - - -	Estimates	
		1973	1974
Total, all agencies.....			
Departments			
Department of Agriculture.....			
Department of Commerce.....			
Department of Defense, Total.....			
Department of the Army.....			
Department of the Navy.....			
Department of the Air Force.....			
Departmentwide Funds.....			
Defense Agencies.....			
Director of Test and Evaluation.....			
Department of Health, Education, and Welfare.....			
Department of the Interior.....			
Department of Transportation.....			
Other Agencies			
Atomic Energy Commission.....			
Environmental Protection Agency.....			
Federal Aviation Agency.....			
National Aeronautics and Space Administration.....			
National Science Foundation.....			
Office of Economic Opportunity.....			
Veterans Administration.....			
All Other Agencies.....			



Table 7  
U.S. : Federal expenditures for R&D plant, by agency, fiscal years 1964-74  
(Millions of dollars)

Agency	1964 - - - - -	Estimates	
		1973	1974
Total, all agencies.....			
Departments			
Department of Agriculture.....			
Department of Commerce.....			
Department of Defense, Total.....			
Department of the Army.....			
Department of the Navy.....			
Department of the Air Force.....			
Defense Agencies.....			
Department of Health, Education, and Welfare.....			
Department of the Interior.....			
Department of Transportation.....			
Other Agencies			
Atomic Energy Commission.....			
Environmental Protection Agency.....			
Federal Aviation Agency.....			
National Aeronautics and Space Administration.....			
National Science Foundation.....			
Veterans Administration.....			
All Other Agencies.....			

Table 8  
U.S. : Federal obligations for research and development, by agency, fiscal years 1964-74  
(Millions of dollars)

Agency	1964 - - - - -	Estimates	
		1973	1974
Total, all agencies.....			
Departments			
Department of Agriculture.....			
Department of Commerce.....			
Department of Defense, Total.....			
Department of the Army.....			
Department of the Navy.....			
Department of the Air Force.....			
Departmentwide Funds.....			
Defense Agencies.....			
Director of Test and Evaluation.....			
Department of Health, Education, and Welfare.....			
Department of the Interior.....			
Department of Transportation.....			
Other Agencies			
Atomic Energy Commission.....			
Environmental Protection Agency.....			
Federal Aviation Agency.....			
National Aeronautics and Space Administration.....			
National Science Foundation.....			
Office of Economic Opportunity.....			
Veterans Administration.....			
All Other Agencies.....			

Table 9  
U.S. : Federal obligations for R&D plant, by agency, fiscal years 1964-74  
(Millions of dollars)

Agency	1964 - - - - -	Estimates	
		1973	1974
Total, all agencies.....			
Departments			
Department of Agriculture.....			
Department of Commerce.....			
Department of Defense, Total.....			
Department of the Army.....			
Department of the Navy.....			
Department of the Air Force.....			
Defense Agencies.....			
Department of Health, Education, and Welfare.....			
Department of the Interior.....			
Department of Transportation.....			
Other Agencies			
Atomic Energy Commission.....			
Environmental Protection Agency.....			
Federal Aviation Agency.....			
National Aeronautics and Space Administration.....			
National Science Foundation.....			
Veterans Administration.....			
All Other Agencies.....			

Table 10  
U.S. : Federal obligations for basic research, by selected agency, fiscal years 1964-74  
(Millions of dollars)

Agency	1964 - - - - -	Estimates	
		1973	1974
-Total.....			
Department of Agriculture.....			
Department of Defense.....			
Department of Health, Education, and Welfare.....			
Atomic Energy Commission.....			
National Aeronautics and Space Administration.....			
National Science Foundation.....			
All others.....			

Table 11  
U.S. : Federal obligations for applied research, by selected agency, fiscal years 1964-74  
(Millions of dollars)

Agency	1964 - - - - -	Estimates	
		1973	1974
Total.....			
Department of Agriculture.....			
Department of Commerce.....			
Department of Defense.....			
Department of Health, Education, and Welfare.....			
Department of the Interior.....			
Department of Transportation.....			
Atomic Energy Commission.....			
Environmental Protection Agency.....			
National Aeronautics and Space Administration.....			
National Science Foundation.....			
Veterans Administration.....			
All others.....			

Table 12  
U.S. : Federal obligations for development, by selected agency, fiscal years 1964-74  
(Millions of dollars)

11-21

Agency	1964 - - - - -	Estimates	
		1973	1974
Total.....			
Department of Defense.....			
Atomic Energy Commission.....			
National Aeronautics and Space Administration.....			
All others.....			

Table 13  
U.S. : Federal obligations for basic research, by performer, fiscal years 1964-74  
(Millions of dollars)

II-22

Performer	1964 - - - - -	Estimates	
		1973	1974
Total.....			
Federal intramural.....			
Industrial firms.....			
Universities and colleges.....			
FFRDC's administered by universities.....			
Other nonprofit institutions .....			
All other performers.....			

U.S. : Federal obligations for applied research, by performer, fiscal years 1964-74  
(Millions of dollars)

Performer	1964 - - - - -	Estimates	
		1973	1974
Total.....			
Federal intramural .....			
Industrial firms .....			
Universities and colleges.....			
FFRDC's administered by universities.....			
Other nonprofit institutions .....			
All other performers.....			



Table 15  
U.S. : Federal obligations for development, by performer, fiscal years 1964-74  
(Millions of dollars)

Performer	1964 - - - - -	Estimates	
		1973	1974
Total.....			
Federal intramural.....			
Industrial firms .....			
Universities and colleges.....			
FFRDC's administered by universities.....			
Other nonprofit institutions .....			
All other performers.....			

Table 16  
U.S. : Federal obligations for basic research, by field of science, fiscal years 1964-74  
(Millions of dollars)

Field of Science	1964 - - - - -	Estimates	
		1973	1974
Total, all fields.....			
Life sciences.....			
Psychology.....			
Physical sciences.....			
Environmental sciences.....			
Mathematics.....			
Engineering.....			
Social Sciences.....			
Other sciences.....			

Table 17  
U.S. : Federal obligations for applied research, by field of science, fiscal years 1964-74  
(Millions of dollars)

11-26

Field of science	1964 - - - - -	Estimates	
		1973	1974
Total, all fields.....			
Life sciences.....			
Psychology.....			
Physical sciences.....			
Environmental sciences.....			
Mathematics.....			
Engineering.....			
Social sciences.....			
Other sciences.....			

Table 18  
U.S. : Federal obligations for research and development, by geographic division  
and State fiscal years 1963, 1965, 1968, 1969, 1970, 1971 and 1972

(Millions of dollars)

Division and State	1963	1972
United States, total.....	-----	
New England.....		
Connecticut.....		
Maine.....		
Massachusetts.....		
New Hampshire.....		
Rhode Island.....		
Vermont.....		
Pacific.....		
Alaska.....		
California.....		
Hawaii.....		
Oregon.....		
Washington.....		
Outlying areas.....		
Offices abroad.....		

U.S. : Federal obligations for R&D plant, by geographic division and State,  
fiscal years 1963, 1965, 1968, 1969, 1970, 1971, and 1972

(Millions of dollars)

Division and State	1963 - - - - -	1972
United States, total.....		
New England.....		
Connecticut.....		
Maine.....		
Massachusetts.....		
New Hampshire.....		
Rhode Island.....		
Vermont.....		
Pacific.....		
Alaska.....		
California.....		
Hawaii.....		
Oregon.....		
Washington.....		
Outlying areas.....		
Offices abroad.....		

Table 20  
U.S.: Federal R&D expenditures by function, subfunction, and agency program under an alternative  
classification system, fiscal years 1963-74  
[Dollars in millions]

II-29

Function, subfunction, and agency program	1963	-----	1974
Total, all functions.....			
Health, total.....			
Development of health resources, total.....			
National Institutes of Health.....			
Health Services and Mental Health Administration(HEW).....			
Medical and prosthetic research(VA).....			
Health-related activities(AEC).....			
Commerce and industry, total.....			
Regional economic development, total.....			
Economic Development Administration(Commerce).....			
Appalachian Regional Commission.....			
Assistance to industry, total.....			
Office of Minority Business Enterprise(Commerce).....			
Small Business Administration.....			
Regulation of industry, total.....			
Federal Trade Commission.....			
Civil Aeronautics Board.....			

Table 21  
U.S.: Funds for research and development, by industry, 1956-1973  
(Dollars in millions)

11-30

Industry and size of company		SIC code	1956 - - - 1973
Total .....		.....	
Distribution by Industry			
Food and kindred products .....	20		
Textiles and apparel .....	22,23		
Lumber, wood products, and furniture .....	24,25		
Paper and allied products .....	26		
Chemicals and allied products .....	28		
Industrial chemicals .....	281-82		
Drugs and medicines .....	283		
Other chemicals .....	284-89		
Petroleum refining and extraction .....	29,13		
Rubber products .....	30		
Stone, clay, and glass products .....	32		
Primary metals .....	33		
Ferrous metals and products .....	331-32, 3391, 3399		
Nonferrous metals and products .....	333-36, 3392		
Fabricated metal products .....	34		
Machinery .....	35		
Electrical equipment and communication .....	36,48		
Radio and TV receiving equipment .....	365		
Communication equipment and electronic components ...	366-67,48		
Other electrical equipment .....	361-64,369		
Motor vehicles and other transportation equipment .....	371,373-75,379		
Aircraft and missiles .....	372,19		
Professional and scientific instruments .....	38		
Scientific and mechanical measuring instruments .....	381-82		
Optical, surgical, photographic, and other instruments	383-87		
Other manufacturing industries .....	21,27,31,39		
Nonmanufacturing industries .....	07-12,14-17,41-47, 49-67,739,807,891		

Approved For Release 2000/08/23 : CIA-RDP79-00798A000500090003-1

Table 22  
U.S.: Federal funds for research and development, by industry 1957-1973  
(Dollars in millions)

Industry	SIC code	1957 - - - 1973
Total .....	.....	
Distribution by industry		
Food and kindred products .....	20	
Textiles and apparel .....	22, 23	
Lumber, wood products, and furniture .....	24, 25	
Paper and allied products .....	26	
Chemicals and allied products .....	28	
Industrial chemicals .....	281-82	
Drugs and medicines .....	283	
Other chemicals .....	284-89	
Petroleum refining and extraction .....	29, 13	
Rubber products .....	30	
Stone, clay, and glass products .....	32	
Primary metals .....	33	
Nonferrous metals and products .....	331-32, 3391, 3399	
Ferrous metals and products .....	333-36, 3392	
Fabricated metal products .....	34	
Machinery .....	35	
Electrical equipment and communication .....	36, 48	
Radio and TV receiving equipment .....	365	
Communication equipment and electronic components ....	366-67, 48	
Other electrical equipment .....	361-64, 369	
Motor vehicles and other transportation equipment .....	371, 373-75, 379	
Aircraft and missiles .....	372, 19	
Professional and scientific instruments .....	38	
Scientific and mechanical measuring instruments .....	381-82	
Optical, surgical, photographic, and other instruments	383-87	
Other manufacturing industries .....	21, 27, 31, 39	
Nonmanufacturing industries .....	07-12, 14-17, 41-47, 49-67, 739, 807, 891	



U.S.: Company funds for research and development, by industry 1957-1973  
(Dollars in millions)

Industry	SIC code	1957 - - - 1973
Total .....	.....	
Distribution by industry		
Food and kindred products .....	20	
Textiles and apparel .....	22,23	
Lumber, wood products, and furniture .....	24,25	
Fabric and allied products .....	26	
Chemicals and allied products .....	28	
Industrial chemicals .....	281-82	
Drugs and medicines .....	283	
Other chemicals .....	284-89	
Petroleum refining and extraction .....	29,13	
Rubber products .....	30	
Stone, clay, and glass products .....	32	
Primary metals .....	33	
Nonferrous metals and products .....	331-32, 3391, 3399	
Nonferrous metals and products .....	333-36, 3392	
Fabricated metal products .....	34	
Machinery .....	35	
Electrical equipment and communication .....	36,48	
Radio and TV receiving equipment .....	365	
Communication equipment and electronic components .....	366-67, 48	
Other electrical equipment .....	361-64, 369	
Motor vehicles and other transportation equipment .....	371, 373-75, 379	
Aircraft and missiles .....	372,19	
Professional and scientific instruments .....	38	
Scientific and mechanical measuring instruments .....	381-82	
Optical, surgical, photographic, and other instruments	383-87	
Other manufacturing industries .....	21, 27, 31, 39	
Nonmanufacturing industries .....	07-12, 14-17, 41-47, 49-67, 739, 807, 891	

Table 24  
U. S.: Funds for research and development, by industry and  
size of company, 1956-1973a/

11-33

Industry	SIC code	Millions of dollars				
		Total	Companies with total employment of--			
			Less than 1,000	1,000 to 4,999	5,000 to 9,999	10,000 or more
Total . . . . .	. . . . .					
Food and kindred products . . . . .	20					
Textiles and apparel . . . . .	22, 23					
Lumber, wood products, and furniture . . . . .	24, 25					
Paper and allied products . . . . .	26					
Chemicals and allied products . . . . .	28					
Industrial chemicals . . . . .	281-82					
Drugs and medicines . . . . .	283					
Other chemicals . . . . .	284-89					
Petroleum refining and extraction . . . . .	29, 13					
Rubber products . . . . .	30					
Stone, clay, and glass products . . . . .	32					
Primary metals . . . . .	33					
Ferrous metals and products . . . . .	331-32, 3391, 3399					
Nonferrous metals and products . . . . .	333-36, 3392					
Fabricated metal products . . . . .	34					
Machinery . . . . .	35					
Electrical equipment and communication . . . . .	36, 48					
Radio and TV receiving equipment . . . . .	365					
Communication equipment and electronic components . . . . .	366-67, 48 361-64, 369					
Other electrical equipment						
Motor vehicles and other transportation equipment . . . . .	371, 373-75, 379					
Aircraft and missiles . . . . .	372, 19					
Professional and scientific instruments . . . . .	38					
Scientific and mechanical measuring instruments . . . . .	381-82					
Optical, surgical, photographic, and other instruments . . . . .	383-87					
Other manufacturing industries . . . . .	21, 27, 31, 39 07-12, 14-17, 41-47 49-67, 739, 807, 891					
Nonmanufacturing industries . . . . .						

a/ These data are available for each year, 1956 through 1973.

Table 25  
U. S.: Funds for basic research, applied research, and development  
by selected industry and size of company, 1957-1973a/

11-34

[Dollars in millions]

Industry and size of company	SIC code	Total	Basic research	Applied research	Development
Total . . . . .	. . . . .				
Distribution by industry					
Food and kindred products . . . . .	20				
Textile and apparel . . . . .	22, 23				
Paper and allied products . . . . .	26				
Chemicals and allied products . . . . .	28				
Industrial chemicals . . . . .	281-82				
Drugs and medicines . . . . .	283				
Other chemicals . . . . .	284-89				
Petroleum refining and extraction . . . . .	29, 13				
Rubber products . . . . .	30				
Primary metals . . . . .	33				
Fabricated metal products . . . . .	34				
Machinery . . . . .	35				
Electrical equipment and communication . . . . .	36, 38				
Communication equipment and electronic components . . . . .	366-67, 48				
Aircraft and missiles . . . . .	372, 19				
Nonmanufacturing industries . . . . .	07-12, 14-17, 41-47, 49-67, 739, 807, 891				
Distribution by size of company (based on number of employees)					
Less than 1,000 . . . . .	. . . . .				
1,000 to 4,999 . . . . .	. . . . .				
5,000 to 9,999 . . . . .	. . . . .				
10,000 or more . . . . .	. . . . .				

Table 26  
U. S.: Funds for basic research, by selected industry  
and field of science, 1957-1973a/

[Dollars in millions]

Industry	SIC code	Total	Physical sciences	Mathematics	Environmental sciences	Engineering (including metallurgy)	Life sciences	Other sciences
Total . . . . .	.....							
Food and kindred products . . . . .	20							
Textiles and apparel . . . . .	22, 23							
Paper and allied products . . . . .	26							
Chemicals and allied products . . . . .	28							
Industrial chemicals . . . . .	281-82							
Drugs and medicines . . . . .	283							
Other chemicals . . . . .	284-89							
Petroleum refining and extraction . . . . .	29, 13							
Rubber products . . . . .	30							
Primary metals . . . . .	33							
Nonferrous metals and products . . . . .	331-32, 3391, 3399							
Products . . . . .	333-36, 3392							
Fabricated metal products . . . . .	34							
Machinery . . . . .	35							
Electrical equipment and communication . . . . .	36, 48							
Communication equipment and electronic components . . . . .	366-67, 48							
Other electrical equipment . . . . .	361-64, 369							
Aircraft and missiles . . . . .	372, 19							
Nonmanufacturing industries . . . . .	07-12, 14-17, 41-47, 49-67, 739, 807, 891							

a/ These data are available for each year, 1957 through 1973.

Table 27  
U.S.: Funds for applied research and development, by product field, 1959-1973  
(Dollars in millions)

11-36

Product field	SIC code	1959 - - - 1973
Total .....	.....	
Atomic energy devices .....	.....	
Ordnance, except guided missiles .....	19, except 192	
Guided missiles and spacecraft .....	192	
Food and kindred products .....	20	
Textile mill products .....	22	
Chemicals, except drugs and medicines .....	28, except 283	
Industrial inorganic and organic chemicals .....	281	
Plastics materials and synthetic resins, rubber, and fibers	282	
Agricultural chemicals .....	287	
Other chemicals .....	284-89	
Drugs and medicines .....	283	
Petroleum refining and extraction .....	29, 13	
Rubber and miscellaneous plastics products .....	30	
Stone, clay, and glass products .....	32	
Primary metals .....	33	
Ferrous metals and products .....	331-32, 3391, 3399	
Nonferrous metals and products .....	333-36, 3392	
Fabricated metal products .....	34	
Machinery .....	35	
Engines and turbines .....	351	
Farm machinery and equipment .....	352	
Construction, mining, and materials handling machinery .....	353	
Metalworking machinery and equipment .....	354	
Office, computing, and accounting machines .....	357	
Other machinery, except electrical .....	balance of 35	
Electrical equipment, except communication .....	36, except 365-67	
Electric transmission and distribution equipment .....	361	
Electrical industrial apparatus .....	362	
Other electrical equipment and supplies .....	363-64, 369	
Communication equipment and electronic components .....	365-67	
Motor vehicles and other transportation equipment .....	37, except 372	
Motor vehicles and equipment .....	371	
Other transportation equipment .....	373-75, 379	
Aircraft and parts .....	372, 19	
Professional and scientific instruments .....	38	
Other product fields, not elsewhere classified .....	.....	

Table 28  
U.S.: Distribution of R&D costs, by industry and type of cost, 1962-1973 <sup>a/</sup>

11-37

Industry	SIC code	Millions of dollars				
		Coverage ratio	R&D costs	Wages Scientists and engineers	Supporting personnel	Materials and supplies
Total .....	.....					
Food and kindred products .....	20					
Textiles and apparel .....	22, 23					
Lumber, wood products, and furniture .....	24, 25					
Paper and allied products .....	26					
Chemicals and allied products .....	28					
Industrial chemicals .....	281-82					
Drugs and medicines .....	283					
Other chemicals .....	284-89					
Petroleum refining and extraction .....	29, 13					
Rubber products .....	30					
Stone, clay, and glass products .....	32					
Primary metals .....	33					
Ferrous metals and products .....	331-32, 3391, 3399					
Nonferrous metals and products .....	333-36, 3392					
Fabricated metal products .....	34					
Machinery .....	35					
Electrical equipment and communication .....	36, 48					
Radio and TV receiving equipment .....	365					
Communication equipment and electronic components ..	366-67, 48					
Other electrical equipment .....	361-64, 369					
Motor vehicles and other transportation equipment .....	371, 373-75, 379					
Aircraft and missiles .....	372, 19					
Professional and scientific instruments .....	38					
Scientific and mechanical measuring instruments .....	381-82					
Optical, surgical, photographic, and other instruments	383-87					
Other manufacturing industries .....	21, 27, 31, 39					
Nonmanufacturing industries .....	07-12, 14-17, 41-47					
	49-67, 739, 807, 891					

<sup>a/</sup> These data are available for each year, 1962 through 1973.



Table 30  
U. S.: Current expenditures for research and development in universities and colleges,  
by source of funds, 1953-1973

[Dollars in millions]

Year	Total R&D performance	Source of funds				Universities' and colleges' own funds
		Federal Government	State and local governments	Industry	Other nonprofit institutions	
1953 .....						
1973 .....						







Table 33  
U. S.: Current expenditures for R&D in universities and colleges, by field of science, and source of funds, 1964-1973

[Dollars in thousands]

Field of science and source of funds	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Total . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Engineering . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Physical sciences . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Environmental sciences . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Mathematics . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Life sciences . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Psychology . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Social sciences . . . . .										
Federal Government . . . . .										
Other sources . . . . .										
Other sciences, n.e.c. . . . .										
Federal Government . . . . .										
Other sources . . . . .										

Table 34  
U. S.: Percent distribution of selected financial, employment, and educational characteristics of scientific and engineering activities of universities and colleges, by institutional group ranked on the basis of R&D expenditures, 1968-1973a/

[Dollars in thousands]

Institutional group ranked according to amount of R&D expenditures	Current R&D expenditures			Total expenditures for instruction	Capital expenditures for research, development, and instruction			Scientists and engineers	Degrees granted in the sciences and engineering	
	Total	Federal Government	Other sources		Total	Federal Government	Other sources		Total	P.D. S.D.
Total, all institutions										
First 10										
Second 10										
Third 10										
Fourth 10										
Fifth 10										
Sixth 10										
Seventh 10										
Eighth 10										
Ninth 10										
Tenth 10										
First 100										
All other institutions										

a/ These data are available for each year, 1968 through 1973.

Table 35

U. S.: Capital expenditures for research, development, and instruction in the sciences and engineering in universities and colleges, by type of institution, and source of funds, 1964-1973a/

[Dollars in thousands]

Type of institution	Total capital expenditures		
	Total	Federal Government	Other sources
Total . . . . .			
Doctorate . . . . .			
Master's . . . . .			
Bachelor's . . . . .			
No science degree . . . . .			

a/ These data available for each year, 1964 through 1973.

Table 36  
U. S.: Current expenditures for intramural R&D performance of  
independent nonprofit institutions, by source of funds, 1953-1973

[Dollars in millions]

	Total	Federal Government	Industry	Other sources
1953 . . . . .				
1973 . . . . .				

Table 37  
U. S.: Current expenditures for R&D performance of independent nonprofit institutions, by  
source of funds and R&D expenditure-size class, 1964-1973

[Dollars in thousands]

Source of funds	Total	R&D expenditure-size class			
		Less than \$500	\$500 to \$999	\$1,000 to \$4,999	\$5,000 or more
Total . . . . .					
Federal Government . . . . .					
State governments . . . . .					
Local governments . . . . .					
Foundations . . . . .					
Voluntary health agencies . . . . .					
Industry . . . . .					
Institutions' own funds . . . . .					
Other sources . . . . .					

Table 38  
U. S.: Current expenditures for R&D performance of independent nonprofit institutions, by field of science

[Dollars in thousands]

Field of science	1964	1966	1969	1973
Total . . . . .				
Engineering . . . . .				
Physical and environmental sciences . . . . .				
Mathematics . . . . .				
Life sciences . . . . .				
Psychology . . . . .				
Social sciences . . . . .				
Other sciences, n.e.c. . . . .				





*Sci Pol*

CENTER FOR POLICY ALTERNATIVES

MIT Building 39-547

CAMBRIDGE, MASSACHUSETTS 02139

(617) 253-1661

CABLE ADDRESS: MIT CAM  
TWO NUMBER: (710) 320-0058

April 9, 1974

Dr. E. E. Grishayev  
Head, Department of Finance and Capital Investment  
State Committee of the Council of Ministers  
Moscow, U.S.S.R.

Dear Dr. Grishayev:

The United States members of the working subgroup on financial research and development statistics have been deeply involved over the past several weeks in identifying data on Soviet research and development expenditures which United States analysts feel will be needed for comparative studies on United States and U.S.S.R. levels of effort in research and development. Similarly, financial data on United States research and development for use by Soviet analysts have been selected for your consideration and relevant information on United States definitions concepts and survey methodologies is being prepared.

I expect the work on this phase of the study program to be completed in the very near future so that the material can be sent to you by the end of April. I am looking forward to receiving comparable material prepared by you and your associates.

I am sorry you were unable to attend the November meeting held in Washington, D.C. It was a pleasure, however, meeting and working with Dr. Maslennikov. Please give him my warmest regards.

Sincerely,

*J. Herbert Hollomon*  
J. Herbert Hollomon  
Director

Center for Policy Alternatives

WS:JDV

*Science Policy*

File  
Suzanne

25X1A

25X1A

April 9, 1974

Dr. E. E. Grishayev  
Head, Department of Finance and Capital Investment  
State Committee of the Council of Ministers  
Moscow, U.S.S.R.

*1. RFE  
2. E+S-fish ?  
Sci Pol, I think*

Dear Dr. Grishayev:

The United States members of the working subgroup on financial research and development statistics have been deeply involved over the past several weeks in identifying data on Soviet research and development expenditures which United States analysts feel will be needed for comparative studies on United States and U.S.S.R. levels of effort in research and development. Similarly, financial data on United States research and development for use by Soviet analysts have been selected for your consideration and relevant information on United States definitions concepts and survey methodologies is being prepared.

I expect the work on this phase of the study program to be completed in the very near future so that the material can be sent to you by the end of April. I am looking forward to receiving comparable material prepared by you and your associates.

I am sorry you were unable to attend the November meeting held in Washington, D.C. It was a pleasure, however, meeting and working with Dr. Maslennikov. Please give him my warmest regards.

Sincerely,

25X1A

WS:JDV

*SAVED  
20 APR 1974  
JAN 1974*

*BEST COPY*  
*AVAILABLE*